PERIODICAL ROOM
GENERAL LIBRARY
UNIV. OF MICH.

SEP 30 1931

THE JOURNAL OF PHILOSOPHY

VOL. XXVIII. NO. 20: SEPTEMBER 24, 1931

CONTENTS

Implications of The Life of Reason: HUGO T. SAGLIO..... 533

Some Remarks in Defense of the Operational Theory of Meaning: GEORGE BOAS and ALBERT E. BLUMBERG 544

Book Reviews:

Wallis's Culture and Progress: F. L. WELLS..... 550

Boas's Our New Ways of Thinking: ELEANOR BISBEE..... 555

England's Kant's Conception of God: JOHN BAILLIE 558

Journals and New Books..... 559

Notes and News..... 560

PUBLISHED FORTNIGHTLY
BY THE
JOURNAL OF PHILOSOPHY, INC.

THE JOURNAL OF PHILOSOPHY

All communications to the Editors should be addressed to Professor FREDERICK J. E. WOODBRIDGE, or Professor WENDELL T. BUSH, or Professor HERBERT W. SCHNEIDER, Columbia University, New York.

Subscriptions and advertisements should be sent to THE JOURNAL OF PHILOSOPHY, Prince and Lemon Streets, Lancaster, Pa., or 515 West 116th Street, New York. The annual subscription price (twenty-six numbers) is $4.00 and the charge for single numbers is 20 cents. Advertising rates will be forwarded on application.

THE JOURNAL OF PHILOSOPHY is owned by The Journal of Philosophy, Inc., 515 West 116th Street, New York, and published at Lancaster, Pa. President, Wendell T. Bush; Vice-President, Herbert W. Schneider; Treasurer, Frederick J. E. Woodbridge; Secretary, Iris W. Wilder.

Entered as second class matter, March 18, 1921, at the Post Office at Lancaster, Pa., under Act of Congress of March 3, 1879.

THE NEW HUMANIST

A Bi-Monthly Journal of Religion and Culture

which endeavors:

1. To present serious discussion of fundamental problems in an atmosphere of freedom and impartiality.
2. To reflect the development of critical thought in all phases of our social life, with particular interest in scientific and religious humanism.
3. To follow as objectively, yet sympathetically, as possible, the drift of religions and culture the world over.
4. To present interesting articles, notes, and reviews dealing informatively, critically, and creatively with religious, philosophic, social and cultural topics.

ARTICLES AND REVIEWS HAVE APPEARED BY THE FOLLOWING:
Henry Nelson Wieman, Walter Horton, Curtis W. Reese, O. W. Firkins, Roy Wood Sellars, John H. Randall, Jr., A. Eustace Haydon, D. C. Macintosh, Robert J. Hutcheon, Forest Witcraft, Herbert Hitchen, F. J. Gould, Martin A. Sprengling, R. S. Stites, A. van Dusen.

Subscription: One Dollar per year. Single Copies: twenty cents.

THE NEW HUMANIST, 14 W. First St., Dayton, Ohio

VOL. XXVIII, No. 20. SEPTEMBER 24, 1931

THE JOURNAL OF PHILOSOPHY

IMPLICATIONS OF *THE LIFE OF REASON*

SANTAYANA'S critics have often pointed out two strands of thought in his *Life of Reason:* the one an Aristotelian naturalism which he announces so eloquently in his Introduction, the other a modernistic subjectivism in the intricacies of which he in subsequent chapters becomes deeply involved. Many have not inquired into the consistency of these two strands. Delighted with the persuasive ethical system he legitimately unfolds, they were enthusiastic in their applause of the Aristotelian background which makes *The Life of Reason* so significant a philosophical development and achievement. They had tended to ignore the second strand, believing that it was not to be taken seriously. They have regarded it as a mistake akin in significance to the mistake which Santayana attributes to Plato, namely, that "the technique of this combination . . . adds nothing to the significance of what Plato has to say on any concrete subject." But time has shown these gentle critics to be wrong. The integral *Life of Reason* has been followed up by discrete *Realms of Being* which but display the disastrous effects that certain curious epistemological biases have had on Santayana's Aristotelian themes. Indeed one might go on and apply to Santayana more of the language he uses of Plato; for his use of a subjectivistic framework for Aristotelian moral philosophy has been "fruitful in misunderstandings."[1] But where with Plato it was his successors who went astray, with Santayana it has tragically enough been himself. *The Life of Reason,* interpreted in terms borrowed from Locke and Hume and other modern thinkers, has generated *Realms of Being.* And to some of Santayana's most ardent admirers this has been a keen disappointment.

Let us consider certain historical matters that are influential in forming the background of Santayana's philosophical development. By the end of the fifteenth century, the ideal luminary of Mediaeval scholasticism which borrowed its light from Plato waned, and its noon gave place to a twilight and then dimmed into a confusing night. Black clouds to overcast the sky had risen from the experiments of Galileo and his followers; and the early travelers of British empiricism were only then seeking a new light to guide them in their search for truth. Despairing of the ideal light because it had

[1] *Reason in Common Sense,* p. 25.

waned and because clouds had come, forgetful even of a certain warmth it shed, they set about the preparation of a tangible candle that they might carry it with them. The attempt was commendable in its spirit, but largely futile in its outcome: Locke saw a little of the light and felt a little of the warmth, but despaired of analyzing the tallow; Berkeley saw the light, but questioned whether it came from any natural source; Hume virtually blew it out. In the meantime the Aristotelian lamp glowed, neglected beneath the bushel.

Now when Santayana started out to live his *Life of Reason,* he uncovered the lamp of Aristotle. He had vision enough to appreciate that light was light, and science enough to admit that the lamp was its natural basis; it was natural to conclude that the greater light and warmth of the platonic sun must somehow similarly be connected with a naturalistic mass. To a very significant degree, his *Life of Reason* was a success; it lyricized, refined, and in sundry respects brought up to date the factuality of Aristotle, and it did this in spite of the fact that its author had a personal attachment to the British candle that had lighted the studies of his own youth, and which indeed, now and again, flickers in the privacy of his library.

We can, however, hardly understand *The Life of Reason* without realizing that Santayana has been preoccupied more with the quality of light than with the physics of light or the metaphysics of lamp or candle. Aristotle saw the lamp as a lamp, and he knew it by understanding its "four causes." The light was its function, and its final cause. Thus Aristotle was a student of things, and Santayana a student primarily of final causes and of things only in so far as they are the natural bases for ideal fulfillments.

Aristotle, to repeat, lived in a world of things, things he might know, and know as they were, by investigating their "four causes." Nor were these "four causes," it must be noted, arbitrarily numbered and assigned to things as handy categories of the understanding. As a scientist of wide experience, Aristotle was compelled to reject as Ultimates the matter which had remained after the analyses of his forerunners. He recognized that matter, *materia prima,* was the residuum that remained at the close of analysis, but he saw too that it was never pure matter; it was always matter in some particular form and necessarily the material cause of the thing that was identified by its form. He could no more admit with Democritus the existence of pure matter than he could subscribe with Plato to a belief in pure form. The two were inseparable, and both the material and formal causes were requisite to the existence, and hence to an understanding, of anything.

Still, to a life which implies activity, the mere identification of a particular and the acknowledgment of its material make-up savor

too strongly of an inactive contemplation. In the first place, not even the contemplation could be complete if there were no understanding of how it came to be. Why it was, in an ultimate sense, was immediately a superfluous and unsophisticated inquiry. To a man of the world in the best sense, it was. What could not be learned of its whyness after one had inquired as to how it came to be must end in futile speculation. Still, it remained to ask "who or what made it," and the efficient cause became a philosophical necessity as it had been an objective fact.

But even the discovery of this third cause did not exhaust the possibility of a knowledge of things. To a man for whom "to be" was "to do" it became imperative to learn what might be done with these discovered things. This point may be considered a crisis in Aristotle's system. Aristotle faced it with a presence of wits that has left his system the outstanding metaphysics the mind of man has not "produced," but discovered. Among other things, Aristotle was a biologist and zoölogist. Had he known the Hebrew Scriptures, he would have been first to notice that the world was made and Adam subsequently placed in it to thrive as he might; Jehovah had not created Adam and then made a world for him. As it was, Aristotle saw with a vision which, if it did not actually anticipate our modern theories of evolution, remains on the whole consistent with them. He saw man as merely one of the animals—the highest and most complex of animals indeed, an animal which besides performing the various functions of reproduction, nutrition, growth, locomotion, and sense experience, also *thought*,—but still, an animal and with other animals and things, striving for the adjustment that might insure its survival. With this clear and sophisticated view of things, the naturalist-philosopher met the crisis and survived it. And as man himself has his ideal fulfillment, so have all other things. Every substance, along with its source in some prior substance and its actual form and its dependence on some agent, has also its functions, uses, ends, or final causes. These uses are not capriciously read into things by anthropomorphic fancy; they are discovered to be part of what things genuinely mean. Indeed these uses are often hostile to man and his human ends. They must, however, be taken into account, no matter how acutely they run counter to man's purposes and ideals. They must, like the other causes, be understood if any thing is to be adequately understood. Thus Aristotle had, in a word, perfected a system by which man might understand things and yet had avoided the danger of making man "the measure of all things."

Final causes then were not creations of the mind that might perceive them. They were the possible actualizations of the poten-

tialities in external objects; they depended upon the objective relations between objects, whether man was involved or not. Containing many potentialities, both things and men might fulfill one or another; and it was necessary to elaborate a system of ethics which in thorough compatibility with the antecedent metaphysics might evaluate these various fulfillments. Aristotle devoted some attention to these ideal fulfillments though it is possible that, in the matter of ideals, he failed to note some of the most rare yet lofty fulfillments possible to the function of the human organism which is the mind. Over-wary of the extravagant exaggerations of the Platonic ideal, he was content to identify the ideal with the best that had empirically been found possible. It is at this point in the ethical development that George Santayana enters upon the stage with his *Life of Reason,* accepting the natural basis which Aristotle had discovered and expanding the ideal fulfillment, in other words, clarifying for practice, the ideal relation that should exist between natural impulse and ideation. The ideal relation is that lofty plane upon which the mind, honestly aware of the natural world in which it lives, seeks, by a process of reasonable reconciliation, the adjustment which will make the life of man harmonious in its activity, rich in its appreciations, and happy in its process. Thus Santayana himself proposes having started "with the immediate flux, in which all objects and impulses are given, to describe the Life of Reason; that is, to note what facts and purposes seem to be primary, to show how the conception of nature and life gathers around them, and to point to the ideals of thought and action which are approached by this gradual mastering of experience by reason."[2]

Thus admitting the ideal which reflection creates (and which is therefore not necessarily encountered in the facts of experience), but connecting it with its natural basis which makes it definable, Santayana proceeds to sketch in glowing and permanent colors the efficacious life of reason in our world of things. He begins judiciously with the natural history of reason. It is by no means an unfortuitous way to begin the unification of "a trustworthy conception of the conditions under which man lives with an adequate conception of his interests."[3]

Before reason can harness the powers of natural impulse to the pursuit of those objects of ideation, it is obvious that the conditions must be defined and the interests discovered. Historically, this is a slow process. The conditions must be envisaged both as the conditions of the pursuit and the potential conditions of the

[2] *Reason in Common Sense,* p. 32.
[3] *Reason in Common Sense,* p. 28.

enjoyment of any ideal end, and the elected interest must maintain a harmonious relationship with these conditions. When these "definite interests are recognized and the values of things are estimated,"[4] harmonious activity evidences the birth of reason.

The mind in its first groupings, unaware of its own interests, finds in the external world only an unordered chaos and flux. Then, as the mind begins to distinguish between pleasure and pain, there results a certain consciousness of itself, and there seems to be a certain foothold, a certain vantage point in the flux. In the light of the pleasures that are to be sought instead of the pain, by a superb effort, the mind arises to a conception of things, of the conditions which because of either their hostility or their sympathy toward that pursuit are at length perceived, and perceived moreover as part of a certain order. The mind has arisen to an appreciation of the world: there is something that lives; there is something to live for; and there is the place and requisite conditions for living. Hence, reason, as Santayana aptly says, "enters into partnership with the world and begins to be respected there; which it would never be if it were not expressive of the same mechanical forces that are to preside over events and render them fortunate or unfortunate for human interests."[5]

Up to this point, Santayana is faithful to a naturalistic interpretation both of the world and of experience, and the natural history of reason seems altogether plausible and acceptable. At this point, the point at which the ethical system is to begin in its more constructive aspect, there is an important crisis for Santayana to meet. He seems to hesitate a moment as though bewildered and then proceeds resolutely along the chosen path much as though there had been no doubt as to which course he should follow.

Santayana's preoccupation with human values has, in a general sense, been suggested. It proves significant in the further development. What has seemed to be a thoroughly naturalistic interpretation of the mind's growing acquaintance with the world in which it finds itself (an interpretation which we have applauded), now seems, more subtly than dramatically, completely inverted. "Nature," he has maintained (and his language seems plain enough), "is the sum total of things potentially observable, some observed actually, others interpolated hypothetically; and commonsense is right as against Kant's subjectivism in regarding nature as the condition of mind and not mind as the condition of nature."[6] And later, as one emerging from a profound reverie and sensing

[4] *Reason in Common Sense*, p. 47.
[5] *Reason in Common Sense*, p. 62.
[6] *Reason in Common Sense*, p. 104.

anew the familiar objects of his material surroundings, he says, "Nature is reason's basis and theme; reason is nature's consciousness; and, from the point of view of that consciousness when it has arisen, reason is also nature's justification and goal."[7] Or again toward the end of *The Life of Reason* he remarks, "Though meaning is the object of an ideal function, and signification is inwardly appreciable only in terms of signification, yet the ideal leap is made from a material datum: that in which signification is seen is a fact."[8] Perhaps we misunderstand the language, but it sounds much like the lingering memory of a once naturalistic interpretation.

Yet in the meantime, Santayana seems to have deserted the cause. He is headed toward a pure Berkeleyan idealism. If we find him changing his course again before he reaches this startling goal, it is because (to put it logically), he lacks the god which is the necessary support of Berkeley's "qualities," and (to put it personally), he has imbibed more than he has perhaps realized of the modern spirit.

In any event, he has gone far enough to treat sensation on the basis of British epistemology. And thought, previously a form of life to be "conceived on the analogy of nutrition, generation, and art,"[9] is now exalted, if not actually to the proportions of the Berkeleyan God, to a position where it must assume some of the functions of that deity. "What is conceived to support the physical qualities is a pseudo-psychic or vital force," he says now; "it is a moral and living object that we construct, building it up out of all the materials, emotional, intellectual, and sensuous, which lie at hand in our consciousness to be synthesized into the hybrid reality which we are to fancy confronting us."[10] Thought goes on to attribute to these objects their systematic distribution and their settled character. "Water does not run down hill more persistently than attention turns experience into constant terms."[11] To understand the full implication of this latest assertion, psychologically true from even the most naturalistic point of view, it will be necessary to examine the status of "experience" in the light of the foregoing.

Experience, sensuous experience, is no longer food for knowledge. Knowledge, says Santayana, "is a salutation, not an embrace."[12] Such a remark is in one sense entirely true; for in

[7] *Reason in Common Sense*, p. 205.
[8] *Reason in Science*, p. 31.
[9] *Reason in Common Sense*, p. 67.
[10] *Reason in Common Sense*, p. 73.
[11] *Reason in Common Sense*, p. 74.
[12] *Reason in Common Sense*, p. 77.

knowing a thing we need not physically possess it nor have it present to sense, provided it is the object of our intent and embodies the form we entertain of it in idea. But in any other sense the remark goes astray. It becomes false if it implies that what is intelligibly present in mind can not actually be found as the nature of particular substances. Yet beneath Santayana's felicitous use of this pregnant phrase something of this kind happens. Knowledge, for him, ceases to live on the objects of experience. Though he previously agreed with Aristotle that "everything ideal has a natural basis,"[13] he now and again in his preoccupation with the ideal entirely ignores the natural basis, the natural basis, which, we assume, would be known through sense. Because it is the ideal aspect of things "that endows existence with character and value, together with representative scope and a certain lien upon eternity,"[14] and because this "supersensible substance, reality, or independent object, does not itself descend into the arena of immediate sensuous presentation,"[15] sense experience is very elaborately discredited in its entirety. This liquidation of the validity of the objects given in sense experience, and indeed, of sense experience itself, has become a logical necessity; either the ideals of thought are real, or the sensed objects are real, and if the reality is to be attributed to the latter, "all intelligible objects and the whole universe of mental discourse would then be an unreal and conventional structure, impinging ultimately on sense from which it would derive its sole validity."[16] The quotation suffices to indicate what Santayana must inevitably choose. Reason wins the day and what "evidence" must still be attributed to sense is given a diplomatic passport into the realm of "pure confidence in reason."[17] Still, no triumph is without its costs, and Santayana grows a bit wistful over the inevitable and complete loss of matter. Even if the only value of the candle be in terms of its light and warmth, the light and warmth must be sacrificed if the tallow is removed. Santayana finds himself confronted with the dangers of a neo-Platonic identification of the efficient with the final cause; he copes with this danger somewhat successfully, but his weapons are at best those of British empiricism and he emerges a Platonic Locke.

We are now ready to take our first excursion of inspection into one of the provinces of essence. Matter is preserved, deftly enough, and the dignity of mind with the reality of ideals is also maintained most charmingly, most persuasively. "You will not

[13] *Reason in Common Sense*, p. 21.
[14] *Reason in Common Sense*, p. 79.
[15] *Reason in Common Sense*, pp. 76–77.
[16] *Reason in Common Sense*, p. 78.
[17] *Reason in Common Sense*, p. 80.

be so idiotic," says Santayana, "to make no inference from your sensations; you will not pin your faith so unimaginatively on momentary appearance as to deny that the world exists when you stop thinking about it."[18] We are at first astounded with what seems to be an apparent lack of distinction between *thinking* and *sensing,* but, remembering that the "evidence of sense" is still "pure confidence in reason," we again permit ourselves to be led on, keeping, nevertheless, a careful eye on the path that we may not be lost should this particular province, or indeed the entire realm of essence, prove an unsatisfactory environment for the animals we are, nourished by and dependent on a world of things.

Sensuous data are "appearances" and we must proceed to investigate just what it is that they are evidences or appearances of. Santayana is honest enough when he insists that "your present impressions, dependent as they are on your chance attitude and disposition and on a thousand trivial accidents, are far from representing adequately all that might be discovered or that is actually known about the object before you."[19] We can not deny that we do not possess the kind of mind which, once having seen a steamship, will not, as it stands on the shore and senses the distant smoke along the blue horizon, immediately construct the implied ship and the necessary smoke-stack. Yet the process is one of purely natural association. If in the finite series of actual ships we have perceived, we have found a certain similarity, it has been a similarity between particulars, ships actually known, from which our minds abstracted a notion of ships and of smoke-stacks. Indeed, the better we have known the ships, the more adequate will be our appreciation of similarities and of dissimilarities. But Santayana prefers to treat this abstracted notion of ships as an essence which the sensation of "ship" has now and then saluted, but never "embraced." Having preserved the material ship, he forbids our knowing more than its essence, which it must be noted is different from the abstracted notion we have gathered from repeated experiences. "The several repetitions of one essence given in consciousness will tend at once to be neglected, and only the essence itself—the character shared by those sundry perceptions—will stand and become a term in mental discourse,"[20] and the only reality.

Such a conclusion seems to imply a difficulty possibly traceable to a confusion of sensations and their causes. But sensations are not their own causes; if they were, to insist that knowledge embraces objects would be as admissibly absurd as it might be for a

[18] *Reason in Common Sense,* p .81.
[19] *Reason in Common Sense,* p. 81.
[20] *Reason in Common Sense,* p. 74.

man continually to embrace his own arms. Sensations, rather, are the arms of the mind; and without the selective and integrating government of the mind, sensations would embrace at random and indiscriminately, quite as impulse unruled by ideation might fare in the everyday world. Mind without sensations would be like an armless man, starving alone, beneath a cherry tree. By integrating and classifying the reports of the senses, the mind comes to know objects, and to recognize their relations each to each, and each to all, and of itself to each and all. And it becomes proverbial that the mind is more in a position to abstract and infer, the better it understands "the four causes" of the particulars. But if "to discover a physical object is to pack in the same part of space, and fuse in one complex body, primary data like colored form and tangible surface," [21] or to know anything is merely to recognize the appearance of an essence, are we not constructing a fictitious universe on the evidence of sense, and, having taken refuge in it, promptly renouncing all allegiance to the very sensations which originally furnished the data? There may be a kind of knowledge which is knowledge-of-similarities-only; but the philosopher, if he would be a man of affairs and journey to Rome, must embark on a particular ship, and that ship must exist on its own account, ideally as it may be made to function. Sensations will continue to be physical reactions to the natural objects that produce them, and the external objects will be the very objects that produce those very sensations, and knowledge will be mind's knowing them as such; for while impulse naturally acts on particulars, ideation sees the entire picture.

One will not presume to deny the reality of facts which are not directly given in presentational immediacy; for such a denial would truly be the complete annihilation of an entire universe of legitimate intellectual concepts. The theory of evolution is a real hypothesis which no single sensation can verify, and the Republic of Plato is ideally existential. But in the case of the first, if the scientist were not to find it supported by the evidence of known particulars, he would be compelled to discard it as a theory and to relegate it to the paradoxical existence of an untruth; and in the case of the second, when Plato had studied the Greek city and abstracted from it the concept of an ideal fulfillment, he still loved his native Athens too dearly to cast it aside like a "squeezed orange." [22] On the other hand, objects sensed are just those objects and neither particular nor universal essences; and, if I understand Santayana correctly, his almost invariable failure to concede

[21] *Reason in Common Sense,* p. 162.

[22] *Reason in Science,* p. 71.

to sensation the status of a process between mind and the material objects of knowledge leads to the logical but embarrassing necessity of reducing the whole world to a realm of essence.

The transition, or inversion as it may be, is, as has been indicated, more gradual than dramatic, and there is no point in *The Life of Reason* at which the reader can more than be aware that the naturalistic interpretation is receding and giving way to an advancing epiphenomenalism which is the thesis of development in *The Realms of Being*. The first step identifies the essence with "the character shared by sundry perceptions," and material things begin to grow unknowable as their sole function becomes that of subtending these qualities or being appearances of the essence; but a doctrine which attributes the sole reality to the recurrent characteristics of sensed particulars or perceptions (which are at the same time reduced to unknowable substrata) and elevates these characteristics into a quasi-Platonic essence has inescapably separated "the four causes" from Aristotle's substances or "things" of which they are the causes, consigning the final cause to mind, and rendering the efficient cause an external unknowable.

Essences, then, originally merely the mind's ideas of the external objects of knowledge, become hypostatized over and above the particular objects of which they were previously the concepts. But this would be too simple a conclusion. The mind will infer a candle when the eye sees a flicker and construct a ship out of mere smoke; consequently the essence has been expanded to class proportions and any particular will unknowably support the identical essence, the class name, or more truly, the ideal and only reality. But Santayana was not content to rest here. Indeed, he retraced his steps, but he came back to a world of objects imbued with a foreign spirit; it was impossible to rematerialize objects in the old sense, so what he did was to reparticularize and democratize essences. In this way he sought to make mind at home in a new world and to free it from the annoyance of sensuous distraction.

The first volume of *Realms of Being* defines the nature of essences with clarity and definiteness. They are infinite in number and variety, and eternal in their scope and being; and though "essences are the only objects of indubitable and immediate experiences," [23] they are altogether indifferent toward being experienced, descending into the arena of understanding only casually, if not, indeed, purely by accident. Essences are entirely free, and where there are implications, they "must be something imposed on essences by human discourse." [24]

[23] *Realm of Essence*, p. 165.
[24] *Realm of Essence*, p. 81.

The logical development, if we may on our own account insist on implications, is the reduction, or perhaps the elevation to essences, first, of the entire world with all the particulars which lend continuity to experience, and then, should we rashly become self-conscious, of ourselves, and even of Santayana himself, should we pause to consider him. His answer to the questions of formal and final causes has been the sacrifice of the very things of which he has sought to explain the causes.

In *The Realm of Matter* Santayana returns to cope with the problem of efficient and material causes. What he actually attempts to do is to know what his previous position has rendered "the unknowable." To predicate the "presumable," not to mention the "indispensable" properties of the re-enstated substance involves certain contradictions and inconsistencies which it is hard to imagine that Santayana himself would try to reconcile. Clearly, to know so much of substance, if essences only are given to the understanding, necessarily implies an essential status for substance which is probably not Santayana's intention. On the other hand, to know substance as substance and not a new kind of essence would mean that essences are not the only objects of knowledge. Moreover, this knowledge of substance might be developed in either of two ways. We may know the special properties of each particular instance of substance, in which case we have come home to the Aristotelian "things" which Santayana has seemed progressively to deny; or we may know only the secondary qualities of substance, in which case, we must assume an unknowable substratum supports essential qualities that we do know, necessarily as essence; and Locke and Plato shake hands in the twentieth century.

When we have laid aside the writings of Santayana in all of their charming persuasiveness, to criticize his doctrines seems meanly to bark at him for "browsing so innocently" [25] in the pastures of his own speculation, but to accept him solely on the merit of his art would be to consider him merely a literateur. He is a literateur, but he is also a philosopher; and because his philosophy contains so much that is acceptable, we may be free to question that which in our way of thinking seems less worthy of acceptance. Indeed there has been so much of the acceptable that American naturalism has claimed *The Life of Reason* as partisan literature. The *Realms of Being* to which the movement objects is now seen to be the logical development of the metaphysical implications of the earlier works. The mistake was obviously in the epistemological approach which inevitably separated "things" from their "causes"; and the unfortunate result is an untenable metaphysics, though

[25] *Realm of Matter*, p. 1.

we may, and no doubt shall, because of its intrinsic applicability, seek to live the life of reason which Santayana has so beautifully expounded and defined in our own world of Aristotelian things; and as good citizens, we will yet acclaim Santayana, detached and disinterested as he may be, one of the foremost of men in our community of natural objects.

HUGO T. SAGLIO.

AMHERST, MASS.

SOME REMARKS IN DEFENSE OF THE OPERATIONAL THEORY OF MEANING

THIS paper does not pretend to be a complete analysis of the theory of meaning which has been given the name "operationalism" by Professor Bridgman. It attempts rather to present some considerations which may make that theory seem less bizarre to its critics.

According to our understanding, Professor Bridgman addresses himself primarily to the meaning of scientific concepts, particularly those of physics, although at times he seems to extend his theory to other fields.[1] The operational theory, then, is not concerned with the "meaning" of logic and mathematics or of works of art. Regarding this self-imposed limitation, it is only fair to add that one need not maintain that all symbols have meaning in the same sense.

Furthermore, the theory attempts specifically to define the abstract concepts of physics in terms of the concrete, physical world of common sense. The common-sense world is presupposed, but this presupposition, it is essential to note, is metaphysically neutral, for the question of the ontological status of physical objects is not raised. Consequently, criticisms of the operational theory which concern the nature of common-sense objects and their relations to sense-data, ideas, minds, the absolute, experience, etc., are irrelevant.

Operationalism is a technique for building concepts. That such a technique is needed is illustrated by the history of the sciences. No science has been free from concepts which turned out for one reason or another to be unacceptable. One has only to list essences, powers, substantial forms, imponderable fluids, and indetectable forces to become immediately aware of this. Anyone, whether proponent or opponent of operationalism, will probably admit that the sciences are better off without such terms. The least that can be said for operationalism is that it offers not only a means of avoiding them but an explanation for their rejection. It specifies, in short, that for a term to have meaning its definition must formulate

[1] *The Logic of Modern Physics*, p. 5.

operations which enable us to determine the truth or falsity of the propositions in which the term occurs. By truth or falsity is meant correspondence to fact in the naïve sense of the word "fact." [2]

Criticism of the theory has centered mainly about two points. First, what types of assertions are operationally meaningless? This question arises from the uncertainty as to whether the operations meant are actual or possible and the difficulty of rendering precise the latter alternative. Second, critics, distinguishing between a criterion of meaning and a theory concerning the content of meaning, have held that if operationalism offers both, then where operations are different, meanings are different. Hence, the term "electron," for example, would have as many distinct meanings as there are ways of verifying experimentally the presence of the entity in question. We shall treat these two points briefly in an effort to clarify to some extent the numerous issues involved.

I

To begin with, it is sufficiently obvious that when the operationalist defines a concept in terms of operations, the meaning of the concept thus defined is not restricted to performed operations or to operations which are actually going to be performed. Einstein, for example, does not mean by "simultaneity" operations already performed, nor does he require that we actually perform the specified operations each time the concept is employed. Operationalism must be understood to state that a concept has no meaning unless its definition formulates *performable* operations, unless in short the propositions in which the term occurs are empirically *verifiable.* Thus to see what is meant by "operationally meaningless" we must make clear what is meant by the "impossibility" of verification.[3]

To term a proposition unverifiable may mean any one of three things; only the third suffices to exclude the proposition as meaningless. In the first place, the impossibility of verification may be purely practical. Here propositions (e.g., concerning the other side of the moon) are operationally unverifiable not because operations have not been given, but because they can not at present be carried

[2] As Professor Bridgman points out, Einstein's technique in formulating the definition of the simultaneity of spatially-separated events in the Special Theory was operationalistic and served in no small part as the inspiration for *The Logic of Modern Physics.*

[3] This discussion is limited to ordinary empirical verifiability. All other so-called types of verification, such as intuitive and dialectical demonstrations, depend upon confusions which can not be investigated here. The treatment of verifiability given in this paper is an elaboration of the logical positivistic technique, of which operationalism can be shown to be a special case. (See "Logical Positivism," Albert E. Blumberg and Herbert Feigl, this JOURNAL, Vol. XXVIII, pp. 281 ff.

out. Such propositions may have little practical importance, but since operations are specified which would determine their truth or falsity if they could be carried out, they are meaningful.

A second type of proposition is important in that it gives rise to the mistaken impression that for operationalism all false propositions are meaningless. This is primarily a verbal confusion. Propositions (e.g., concerning a perpetuum mobile of the second type) are sometimes termed unverifiable when what is meant is that the propositions contradict well-established generalizations of the sciences. But such propositions, though false, are meaningful, for we can give the conditions under which we should call them true or false (e.g., a closed system exhibiting a decrease, rather than an increase, in entropy). A proposition to be false must be meaningful; operations must already have been given which enable us to determine its falsity.

Finally, there are assertions whose verification is *theoretically* as well as practically impossible. It is this and only this type of assertion which operationalism holds to be meaningless. The theoretical impossibility of verification is therefore a fundamental notion—and a dangerous one, since it seems to open up a fertile field for all manner of apriorism. However, for the operational theory, as for any other empirical approach, the *a priori* synthetic judgment does not exist. Consequently, the *a priori* impossibility of verification must in all cases rest upon analytic or non-factual elements.

Theoretically unverifiable assertions, accordingly, fall into two classes. The first is really pre-operational and concerns *a priori* analytic impossibilities of verification. It includes patently self-contradictory statements (e.g., "*p* and not-*p*"), assertions which contain implicit self-contradictions (e.g., "All objects in space doubled in size."), and confusions of logical types (e.g., a statement in which a function is taken as argument to itself). Such groups of symbols are meaningless operationally because they are nonsense; they are all mistakes in logical syntax and lie wholly within the language or symbolism.

The second is the most important and includes all propositions containing undefined, but not logically indefinable terms.[4] These propositions are without meaning precisely because definitions are lacking, operations have not been formulated. To call such propositions meaningless signifies simply that and nothing more profound. It remains possible, obviously, to convert the same symbols into a

[4] By indefinable is usually meant not-definable explicitly or *in use*. It is to be observed that the indefinables or primitives must also receive operational or applicational definitions by pointing.

meaningful proposition by giving the undefined terms operational definitions.

It may seem that this delimitation has shorn operationalism of what has been called its corrective efficacy and that the apparent radicality of its thesis has proved to be purely verbal. However, this is not entirely the case. Wholly apart from the application of operational or similar criteria to the traditional propositions of philosophy, the fundamental utility of the view is the enormous increase in precision which it brings to scientific concept-building. It makes explicit the procedure of empirical definition which distinguishes physics from pure mathematics. By focussing attention upon verifiability (as well as truth) it offers a safeguard against the introduction of such concepts as Newtonian absolute time. There the term in question was only apparently defined. Newton, no doubt, had certain ideas concerning it, but the essential point was never made explicit, namely, that statements concerning absolute time-intervals depended for verification upon the existence of a signal (e.g., light) which travelled with infinite velocity. The operational analysis, with its insistence upon verifiability soon revealed this. The result was Einstein's demonstration in the Special Theory that verifiable propositions concerning time-intervals involve a stipulation or convention and that when the most natural stipulation is made (i.e., the constant velocity of light in vacuo) time-intervals turn out to be relative to the state of motion of the reference-frame.

Another much-cited example of operational analysis is the question of the meaningfulness, within the quantum theory, of propositions concerning the position and velocity of an electron. The familiar uncertainty relation sets a theoretical, not practical, limit to the exactitude with which the two quantities can be measured. Hence, beyond that limit the use of the two terms "is just as meaningless as the use of words whose sense is not defined." [5]

Indeed throughout the history of the sciences there has been a definite need for such a technique. Time and again confusion has arisen, as in the case of caloric, between the detection of the non-existence of some substance and the inability to detect its existence or non-existence, between a false proposition and a meaningless one. Operationalism, far from confusing the two, offers a means distinguishing between them by demanding that all symbols, at least in physics, be given unambiguous empirical meanings.

To sum up, operationally meaningless propositions arise from (1) mistakes in logical syntax, such as self-contradictions and con-

[5] W. Heisenberg: *The Physical Principles of the Quantum Theory*, p. 15. The failure to see the full significance of the distinction between practical and theoretical impossibility of measurement (and verification) vitiates the criticisms of Professor A. P. Weiss (*Scientific Monthly*, Dec., 1929) and others.

fusions of logical types, and (2) failures to define empirically terms within the propositions.

II

Critics have raised the following question about the operational theory: Does it offer simply a criterion of meaning or does it specify, in addition, the content of meaning? It may indicate, such critics say, merely the conditions under which a term has meaning, again it may assert also what the meaning of the term is. Operationalism in the first instance would hold that a term is meaningless unless its definition formulates operations which determine its application; in the second instance it would assert furthermore that the meaning of a term *is* the occurrence of a specified event under the conditions specified.

The distinction seems to be arrived at on the analogy of arguments from circumstantial evidence. It is supposed that we must distinguish between the data or signs and the things or events, existentially distinct from them, for which they serve as a basis of inference. A crime, for example, is not identical with the traces by means of which it is discovered, nor is oxygen the same as the tests which determine its presence. It then follows readily that if operationalism be understood in both of the two senses indicated above, a difference in operations will necessarily yield a difference in meaning. This has the consequence, apparently, that in the case of any ordinary scientific object, such as an electron, the multiplicity of methods of detecting its presence would result in a corresponding family of distinct meanings for the term.

The argument in the end rests upon the traditional notion of substance and attribute and the failure to distinguish between verification and inference. This can best be made clear by two illustrations. First, in the case of simultaneity we are concerned with a relation between two events. To say that two spatially-separated events are simultaneous means operationally that an observer situated midway between them will receive light-signals from them as psychologically simultaneous. The occurrence of the specified event under the specified conditions is the full meaning of the concept. This does not mean that the simultaneity of the two events and the reception of signals are identical. Only the entire situation, operations as well as the specific result they yield, constitutes the meaning of the assertion. Criterion and content can not be separated. If it be objected that the experiment is simply a test for something, that it furnishes data from which the simultaneity of the two events may be inferred, it may be replied that in empirical inference the conclusion itself must always be capable theoretically of empirical verification. Therefore, the inferred simultaneity would have to

be detectable operationally and "*X* and *Y* are simultaneous" would still say that certain operations yield a particular result.

When we pass from relations to objects, the situation becomes more complicated, for here we seem to have many means of verification. At this point, an important distinction must be made between inference and verification. Strictly speaking, no particular experiment verifies the presence of an object. It yields certain data and verifies only propositions concerning them. But the object as distinct from the result of the particular experiment is inferred. The Wilson chamber experiments do not verify the presence of electrons, they enable us to infer them. Other experiments differing from these also serve as bases of inference. Hence, the apparent multiplicity of means of verification is really a multiplicity of bases of inference.

It must now be made clear in what sense it may be said that the existence of objects is inferred. The inference is not a passage from perceived effects or attributes to an underlying cause or substance. Such inference, as in the so-called "causal" theory of perception, is illegitimate. Inference is either logical or empirical. If the former, it is tautological or analytic; if the latter its conclusion must be theoretically capable of experimental verification.[6] The argument to a substance or cause is obviously not tautological. Nor is it empirical, since the conclusion (e.g., the assertion of imperceptible causes of perception) can not be verified by an appeal to facts. It is not an empirical extrapolation since what is extrapolated is admittedly not amenable to ordinary empirical investigation.

The notion of an imperceptible metempirical cause of perceived effects is meaningless. The same can be said of the traditional view of substance. The concept of substance, as Schlick and others among contemporary philosophers have contended, is to be replaced by the concept of law. The statement—"This substance has property *x*"—is always completely translatable into a scientific formula or law of the form: "If such and such operations are performed, events *a*, *b*, *c*, etc., occur." Substance, in short, becomes a class of so-called attributes and relations.

Thus the apparent paradox brought forth by critics of operationalism disappears. If we distinguish between verification and inference, we see that the multiplicity which they cite is not one of verifications but of bases of inference. This, therefore, does not give rise operationally to an embarrassing multiplicity of meanings for one and the same term. The same object can be inferred from different sets of operations in the sense that from any one of several

[6] The tautological character of logical inference is explicitly assumed. It would carry us too far to defend the position here.

sets of experimental data (i.e., any one of the various "attributes" of the object) we infer, not verify, the whole range of relevant data (i.e., the class of "attributes" constituting the object). To infer the presence of β-particles from the fog-tracks in the Wilson photographs is to predict that if other specified experiments are performed specified results will be obtained. In contrast with the so-called "causal" inference, this is operationally sound, since what is inferred is always capable of experimental verification.

GEORGE BOAS,
ALBERT E. BLUMBERG.

JOHNS HOPKINS UNIVERSITY.

BOOK REVIEWS

Culture and Progress. WILSON D. WALLIS. New York: McGraw-Hill Book Company, Inc. 1930. 503 pp.

Dr. Wallis has produced a work of much potential significance, repaying careful review not less from his own, socio-anthropological angle, than from that of students of ethics to whom he acknowledges much, and of psychologists, with whom he shows less evidence of contact. By way of variety the theme of this book is actually that of its title. It is about culture and it is about progress, and these are topics of direct concern to any but a quite provincial interest in the field of mental hygiene. For the "clinical psychologist" who wishes to understand the history of philosophical and sociological thought on some of the broader problems in his own field, this very detachment from his field is not without advantage.

Mental hygiene is by definition a value discipline, and while no great attention was in the beginning paid to this fact, there has during the past few years begun a *rapprochement* between psychiatry and the social sciences that may and in time should lead to a close association. Though hardly meant as such, Dr. Wallis's book contains good material for the bridge. In his opening discussion of the history of culture traits, he has been especially happy in choosing for treatment rather the homely everyday complexes in the immediate culture, than those of the Nicobarese, the Ewe-speaking peoples, or the Tierra del Feugians. The reader unconcerned with cultural anthropology assimilates the facts and questions of trait-diffusion much more readily through the medium of the printing complex or the Christmas complex. Likewise with the coffee, tea, and cocoa complexes; though giving to the first of these three a treatment that the Russian or Englishman might look on as exaggerated (some four pages to coffee and about half a page to tea and cocoa). Whether

or not one is interested in cultural anthropology, it contributes to an objective view of culture, *scilicet* adjustment modes, to appreciate our indebtedness for tobacco, peaches, strawberries, paper, chocolate, and playing-cards; and to understand such accretions to the Christmas and Easter complexes as the tree, Santa Claus, the reindeer, dyed eggs, and rabbits. A very useful, and to some extent popular book might be written in elaboration of this theme, on the cultural origin of various objects that we take for granted, coal for example; such information has not been assembled in ready form.

Early in the volume, there is considerable criticism of other views on trait diffusion, of Sapir, Wissler, and Kroeber, in regard to single or multiple origins, and questions of relative chronology. While these authorities have every right to be heard in rebuttal, it appears to a non-anthropological reader, that Dr. Wallis's points are often well taken. These passages are the best defense against whatever reproach may attach to the epithet "compilation," though even as such the volume is well off the beaten tracks of Frazer or Sumner, and embodies much material of which the student of mental hygiene at least, is likely to hear for the first time.

After a survey of comparative culture, some 200 pages, along the above lines, not aspiring to comprehensiveness but fairly inculcating, the theme of progress is taken up. There is pointed out the natural tendency of this theme to attract special attention during times like the present, in which established ideals are being challenged. Very properly he addresses himself to the question of the terms in which progress has been formulated by others. Of these the most intelligible tokens are the Utopias and of them he gives a digest more comprehensive than most readers will wish to follow, but turning up much out-of-the-way material, and very useful for reference. It is curious to see the recent fruitful ideas of the Chicago school on crime and culture-conflicts anticipated in Lycurgus' state (p. 245):

> For along with foreigners come new subjects of discourse; new discourses produce new opinions; and from these there necessarily spring new passions and desires, which, like discords in music, would disturb the established government. He, therefore, thought it more expedient for the city to keep out of it corrupt customs and manners, than even to prevent the introduction of a pestilence.

He cites the Utopia of one Foigny (1676) based on possession by the inhabitants of bisexual functions, after the fashion of earthworms. A somewhat similar idea is in Carmichael's "Ariadne,"[1] not referred to by Dr. Wallis, though his references show him a reader of, as well as contributor to, its medium of publication. His comment on the

[1] *Scientific Monthly*, 1926, XXIII, pp. 225–239.

uniform neglect of esthetic values in the Utopias is worth noting; he finds them conspicuously lacking until the work of H. G. Wells, "drab, with surroundings mean and monotonous, if not sordid." This is what would probably be the general verdict on the Utopias; they would be decidedly unpleasant places for human beings as we know them, to live in. The Utopia of H. G. Wells (whom Dr. Wallis highly praises), is the only one not greatly detached from actual human society and the only one based on anything approaching a realistic human psychology. This is indeed the key to H. G. Wells' influence; he has been effective in symbolizing an exceptional insight and imagination at almost every literary level outside the strictly philosophical.

This psychological detachment of the Utopias illustrates the difficulty that anyone has in altering the accustomed symbolic level of his thinking, and keeping it effective. Witness, e.g., the psychoanalyst or behaviorist trying to be a philosopher, or sociologists and psychiatrists telling how to run each other's disciplines. Nor is the philosopher in much better case when he concretes his ideas in order to clarify them to minds less equipped for thinking *sub specie saeculorum*. "If I cannot carry forests on my back—neither can you crack a nut." From the standpoint of mental hygiene, the field of ethics has always suffered by its lack of contact with the cultural facts in which its principles must operate on a concrete level. Not that the ethical philosopher attempts to build mental hygiene. This is uniformly disclaimed, but he frightens other people from building it on the foundation of his principles. It is when conceptual levels are abandoned and resymbolized as a Utopia that psychological deficiencies appear in special crudity.

Utopias are thus fair game for the satirist and there appear more of the "Inverted" Utopias than is probably realized by other than literary specialists. Familiar ones like Gulliver's Travels or Penguin Island are passed over, but that of Joseph Hall (1607) would seem to merit a wider life than that vouchsafed it by Mencken's adoption of one of its provinces, *Moronia;* another is *Crapula.*

A concluding section is devoted to more general treatment of progress and allied categories. The prevailing view of progress is one expressed in different verbal forms by many Occidental philosophers. It is identified with *Wille zur Macht* and its many verbal equivalents; "progress therefore implies increase in power." Again, later "By overcoming obstacles man has risen; when he ceases to struggle he will be a spirit kindred to the clam, in similar congenial environment," and this struggle is considered in principle superior to the static culture of the savage (p. 401). While this is the dominant viewpoint, there is some question whether it is consistently

maintained. Progress may be increase in power, but this is not as such a good; thus he appears to differentiate between "progress," not necessarily ethical, and "development" with more ethical connotations (p. 206). Again, progress is figured not in terms of greater energy deployment, but as greater ease in performance of something desired; with sharp distinction between the desired and desirable (p. 426). Again, the "ideals of civilization" are set down as "leisure, security and culture" (p. 386); these are scarcely progress in the above definition. Such inconsistencies are of minor importance to the main function of this book, but they should be ironed out if the author later desires to offer more of a synthesis of his own views on its subject.

The concept of progress is correlative to that of pleasure and of it he says in language that might have been borrowed from Warner Fite, "Pleasure lies in the zest of overcoming" (p. 407). Both remarks are logically questionable, as appears in earlier paragraphs, where in contradiction, "By the test of pleasure, the laggard who basks in the ruins of West Indian plantations lives on a high plane. If pleasure is the test the gammon of savagery is as good as the poetry of civilization, and the former may be more abundant" (p. 388). Yet a third definition is non-psychological. "Pleasure is doing a thing for its own sake" (p. 403). This parallels a very satisfactory definition of play given by Blatz and Bott. Each lays emphasis on the immediacy of the satisfaction; something done *sub specie momenti.*[2]

Another passage that will bear clarification is the allusion to a "Hellenistic Empire" giving the model to the theocracy of Caesar Augustus, as a result of which "Europe accepts the divine right of kings and in theory if not in fact

[2] From the standpoint of the *captator verborum.* There is an acromegalic reading list, but the indexing could be fuller. The reader will not consider the word "robot" as "coined" (p. 26) in the sense of a neologism; it has a perfectly good philological history, cf. Russian *rab* slave, *rabota* work. As it occurs on both pages 63 and 70, absence of Latinistic background seems to account for "centripedal" for "centripetal" rather than typographical lapse; this would be consistent with the citation of Augustine's *"hoc quod amant volunt esse veritatem"* (p. 300), rather than Caesar's terser *libenter homines id quod volunt credunt.* A somewhat graver witness to the same affect appears in the references to suicide "by immolation" (p. 77) with evidence in the context that a specific mode of self-destruction is meant. No other meaning for immolation than "sacrifice" is known to normal usage though there is evidence that it has been used to denote the self-castration practices of the Skoptzi (by the same figurative process that appears to-day in the *double entendre* of such generalizing terms as gland, rest-room, manhood, etc.). This would be at least consistent with the attitude towards sex functions elsewhere in the volume; perhaps also make more intelligible the inhospitable attitude towards psychology. By favor of the Freudian gods, the word's Latin ancestor, *immolare,* originally meant to sprinkle meal on a sacrificial victim. One can afford, in our day and generation, to be less "mealy-mouthed."

the king is still the head of the Church'' (p. 86). The historical statements on bolshevism (p. 111), ''it took root in Hungary but not in Austria; . . . in Italy and Spain, but not in England, Germany, or France,'' seem hardly justified in the events and echo answers why, in a discussion of communism, from the Sparta of Plutarch to modern Palestine (pp. 373–377), is there no reference to the soviets?

It is perhaps its own proper comment, that while psychology, at least in the person of one psychologist, feels able to make much that is valuable of Dr. Wallis, he makes very little of psychology and that little not too neighborly. He could have said, here is a body of facts relevant to my field; I can not concern myself with what they mean to yours, take them for what you find them worth. This attitude has the respect of both philosopher and specialist. What he does say is (p. 6):

> To search in the laboratories of biology or psychology for the basic factors of social life Wissler significantly compares with ''groping behind the scenes and digging under the stage, disregarding the comedies, tragedies, and dramas in plain sight. . . . We must deal directly with life itself . . . the realities of social science are what people do.

Support is found in an obscurantist remark from Goethe, ''Do not, I pray, look for anything behind phenomena. They are themselves their own lesson.''[3] Heaven and psychoanalysis only know what the author of the closing lines of *Faust* meant by this; ask chemist or astrophysicist where they would be if they took it literally. Again, quoting George A. Dorsey (p. 44), ''knowledge of the natural history of the oyster is useless in predicting the behavior and social organization of ants; the natural history of neither enables us to predict man's behavior.'' The particular sentiment can be left to the mercies of William Morton Wheeler, but less so the underlying attitude that what has no meaning for oneself has no meaning worth having.

> Culture is a group problem, but life and living are individual and are personality problems, and only the individual can solve them. Personal relations, the art of living, the harmony of the soul, as the Greeks called it, which after all involves more than hormones, are persistent problems, and they must be faced by every individual, for in the last event not culture, but man, is the measure of all things [p. 444].

Again, among the frequent citations of Bernard Mandeville (p. 369) ''one of the greatest Reasons why so few People understand themselves, is, that most Writers are always teaching Men what they should be, and hardly ever trouble their Heads with telling them what they really are.'' Here Dr. Wallis is evidently not without

[3] Or yet more pointedly:

> ''Und was sie deinem Geist nicht offenbaren mag
> Das ringst du ihr nicht ab mit Hebeln und mit Schrauben.''

perception of the problem but he must care little, possibly knows little, about the considerable energies spent in attacking it. Less than one should who works in the same institution with J. E. Anderson, R. M. Elliott, Florence Goodenough, and Donald Paterson. *Prima facie,* comparative studies like the present should remove "cultural prepossession and prejudice" (p. 217) and not transfer them to so near a relative in the family of sciences. On two recent scientific occasions the present writer observed outstanding figures, one an anthropologist, one a sociologist, display the same phenomenon on a level much cruder, perhaps because oral and extemporaneous; so that Dr. Wallis is in good company. Why should there be family jealousy in those quarters particularly? Why is it "cultural prejudice" to kick in the sacred icons of Trobriand Islanders but mete and right to direct such energies at the *geistiger Hosenboden*[4] of the psychologist? A clue is in Dr. Wallis's own above citation of Lycurgus. It is an operation of this principle at the level of the individual. Not long ago a very penetrating writer on anthropology as a museum growth pointed out that it was far easier to elicit interest and support for exhibits of primitives than for the more self-revealing exhibits of our own cultures. That is why the study of personality traits moves faster, if also more erratically, in psychiatry than in psychology; why it is easier to follow a Kroeber or a Malinowski than a Lynd; why it is easier to describe the origins of tobacco, and the history of Utopias, than to seek knowledge of what makes anybody use tobacco, or write Utopias.

> "Be it thy course to busy giddy minds
> With foreign quarrels."

F. L. WELLS.

BOSTON PSYCHOPATHIC HOSPITAL.

Our New Ways of Thinking. GEORGE BOAS. New York: Harper & Bros. 1930. xxi + 194 pp.

"The vital, the creative, the progressive meant nothing to our forefathers; they mean everything to us."[1] Whatever a reader's reaction is to this statement, such will be his reaction to Boas's book.

Will a reader say, "That isn't true; among our Greek forefathers, the vital and creative were not wholly anathema, and among us today are those who would out-Zeno the Eleatics in spurning the mutable"? Or will a reader say, "A sweeping statement, but in broad outline it indicates a genuine tendency"? Criticism of Boas depends largely on whether the reader feels that a philosopher has a right to give in broad outline for popular consumption a positive statement of changing philosophical attitudes.

[4] Dream-speech, cited by Kraepelin.

[1] P. 139.

The book, though popular, is philosophical. Saying that the progressive means everything for us is not established for Boas by using the language and material of the economic or political go-getter. He sticks to philosophy. From Empedocles' introduction of external forces to Bergson's reassertion of inner vitality, he deals with philosophies as such and with philosophical transitions.

Three main points are offered. First, statistical groups and consequently "norm" thinking tends to overcome the Aristotelian class and substance reasoning. The "norm" is an internal standard to be developed from within instead of a pattern to be imposed from without. Here, it must be said, Boas does not bring out a needed emphasis on a stabilizing power in that norm to compensate for the surrender of the old external control by "fixed" standards. The book is too brief to argue much, but, in the later pages of Part I, the presentation too entirely lapses into the popular to do justice to the depth of the preceding implications. Boas declares he is noting only tendencies without appraising them, but in the postlude he commits himself in saying that these changes of thought "seem better than what they have supplanted to the greater and more representative part of men."[2]

The second point is mechanism vs. vitalism, or the theory of growth superceding the theory of impact as an account of change. Hence the shift from explanation by "causes" to explanation by "histories." "There is no reason," Boas maintains, "why one should kow-tow to the vital; why is the living inherently any better than the non-living? A demonstration in geometry is as moving as a piece of music but it is not vital. The creative? Creation goes on among the insects; one can create bad things as well as good things; one can create ill or well. As for the progressive, a man who falls off a roof is progressing; is he any the better off for that? Yet so deeply ingrained in us is what Mr. Wyndham Lewis has called the 'time-cult' that such remarks seem frivolous, stupid, and beside the point. We should prefer to be spiders as long as we might at least spin webs, than gods who did nothing but look on. We are like some of the German romanticists who cared nothing for reaching the goal, but everything for seeking it. Why? Because living things reach no end; their function is growth and multiplication. We have taken over the function and idealized it."[3] (Both the style and point of view of the quotation characterize the book.)

The third point involves the views of Tertullian, Duns Scotus, and Nietzsche, with a Catholic reconciliation of the Reason and Will dilemma. The point is that there have emerged voluntaristic

[2] P. 191.
[3] Pp. 139–140.

philosophies with an Einsteinian operational method, i.e., with meanings revealed through frames of reference and action rather than by eternal contemplation.

The merit of Boas's work is that a significant trend in philosophy is presented popularly without warping philosophy into the patois of science or the patter of business. On the whole there is a minimum of distortion through popular analogy. Any popularizing, however, involves technical inadequacy, and even inaccuracy unless one takes many statements with large grains of salt. This book is adequate to stimulating one to further evaluation of the vitalistic, voluntaristic trend, instead of dismissing that trend as once for all criticized and dispensed with.

Whether we like it or not, Boas insists we shall have to absorb the vocabulary and the basic metaphors of the changing world. "This means a willingness to give up standards in the old sense of the word, to criticize on the basis of the individual rather than the class, to cease mourning over mutability, to find as much esthetic pleasure in internal form as in mechanical composition, to discover rather than to impose values, to believe that action is as noble as contemplation."[4] Such is this attractively published book which the public can read and which students, in order to substantiate or refute the trend indicated, will find suggestive of lines of further reading from the literature of Eleaticism to M. Emile Meyerson, who markedly influences Boas himself.

ELEANOR BISBEE.

UNIVERSITY OF CINCINNATI.

Kant's Conception of God. F. E. ENGLAND. New York: The Dial Press. 1930. Pp. 256.

It is more than a quarter of a century since William James remarked that in his opinion the real advance of modern thinking was rather *round* Kant than *through* him. Yet the volume of Kantian literature was never greater than it is to-day, nor was the discussion of the critical philosophy ever carried on with greater eagerness. Dr. G. Dawes Hicks writes in his foreword to Dr. England's book that the thought of Kant "formed the foundation of all the speculative efforts of the nineteenth century." "And I believe," he goes on, "that for a successful handling of the epistemological problems of the present day, a thorough grasp of the method pursued and the lines of reflexion followed by the critical philosophy is an essential preliminary."

To such an end Dr. England's book makes a distinct contribution. If the author's Kantian scholarship is not on the same scale as that of the great German commentators, it gives evidence of a

[4] P. 191.

sufficient number of years of accurate and comprehensive study. The book is a learned one in both substance and style. The argument leads us into several parts of the Kantian system which are usually regarded as "dead wood" and which the most brilliant pen could hardly bring back to very vigorous life. Dr. England does not aim at brilliance, nor does he attempt to enlist the interest of any but the most serious-minded historical students. Perhaps the book would not have lost anything by being somewhat less severe in its demands on the attention.

The author has conceived his task genetically. What he offers us is the story of Kant's metaphysical development, with special regard to the conception of God, from his earliest to his latest writings. The offering will be gratefully received, for (if we except Caird's not very usable chapters) the thing has never before been attempted in our language; while even in German there is less satisfactory literature on this aspect of Kant's development than on some others (such as the development of his ethical theory). In an appendix Dr. England has printed an English translation, seemingly very well done, of the *Nova Dilucidatio* of 1755—an early treatise in which we can watch Kant chafing at the tethers of the Leibnitzo-Wolffian tradition in which he had been brought up. All English-speaking students will be grateful for this translation.

Yet Dr. England is no mere historian. On the contrary his book is essentially an argument—an argument in criticism of certain of Kant's ideas. Moreover his guiding interest is the metaphysical one. The reader is likely to be struck by the fact that whereas Kant's own interest in the conception of God is a moral rather than a metaphysical (or cosmological or theoretical) one, it is on the metaphysical aspects of Kant's conception that Dr. England concentrates his attention. His chapter on "The Facts of the Moral Life" is brief and perfunctory; and very little is said of the *Religion innerhalb der Grenzen der blossen Vernunft.* In such respects this book reads very differently, for example, from Professor Webb's *Kant's Philosophy of Religion.*

Whether Dr. England is right in his chief contentions we can not here undertake to decide. But we must protest against the assertion, made in the course of his onslaught on the Kantian conception of an intuitive divine mind, that "if change be real anywhere in the universe, it seems impossible to maintain that the whole is immutable" (p. 190). "The notion of time and change," Dr. England goes on to say, "as being contained within a timeless and changeless whole is one which seems to help but little in the interpretation of reality, and really amounts to little more than a mere *vox et praeterea nihil.*" Dr. England mentions the name of Bosan-

quet as a representative of this doctrine, but it is a few thousand years older than he. Were we not taught in our undergraduate days that it was by means of this doctrine that Aristotle harmonized the rival claims of Parmenides and Heraclitus? And from then onwards it has been part of the great tradition in western philosophy. It may not be a true doctrine. But it is certainly not a doctrine that can be dismissed in a few airy phrases. If Dr. England has a real case against it, he has indeed a weighty subject for another and far more arduous piece of writing; but he says nothing here that would give any indication of any strength in his hand. Meanwhile let us thank Dr. England very cordially for what he has already contributed to our knowledge and enlightenment.

JOHN BAILLIE.

UNION THEOLOGICAL SEMINARY.

JOURNALS AND NEW BOOKS

THE PHILOSOPHICAL REVIEW. Vol. XL, 5. Some Descriptive Properties of Relations (II): *Henry Lanz.* Lotze and the One and the Many: *Thomas R. Kelly.* Epistemology Re-examined: *Charles M. Perry.* A Broadening Factor in Logic: *John Wright Buckham.* Discussion: "On the Nature and Definition of a Cause": *D. W. Gotshalk.*

SCIENTIA. Vol. L, N. CCXXXII–8. Ueber die Masse der Saturnringe: *H. Slouka.* La richesse d'inference de la physique mathématique: *G. Bachelard.* A Plea for a More Physiological Conception of Genetics: *D. N. Paton.* Nel mondo della novella indiana: *A. M. Pizzagalli.*

Baillie, J. B.: Hegel's The Phenomenology of Mind. Translated with an Introduction and Notes. Revised 2d Edition. (The Library of Philosophy.) New York: Macmillan Co. 1931. 814 pp. $8.00.

Bucke, Richard Maurice: Cosmic Consciousness. A Study in the Evolution of the Human Mind. 7th Edition. New York: E. P. Dutton & Co. 1931. xv + 384 pp. $5.00.

Cailliet, Emile: Why We Oppose the Occult. Translated by George Franklin Cole. Philadelphia: University of Pennsylvania Press. 1931. London: Humphrey Milford: Oxford University Press. 200 pp. $2.00.

Dewey, John: Context and Thought. (University of California Publications in Philosophy, Vol. 12, No. 3, pp. 203–224.) Berkeley: University of California Press. 1931. 21 pp. 25 cents.

Field, G. C.: Plato and His Contemporaries. New York: E. P. Dutton & Co., Inc. 1930. xi + 242 pp. $4.00.

Georg, Eugen: The Adventure of Mankind. Translated from the German by Robert Bek-Gran. New York: E. P. Dutton & Co. 1931. xx + 345 pp. $5.00.

Harkness, Georgia: John Calvin. The Man and His Ethics. New York: Henry Holt & Co. 1931. ix + 266 pp. $3.00.

Lippmann, Walter: A Preface to Morals. Reissued. New York: Macmillan Co. 1931. vii + 348 pp. $1.00.

Planck, Max: The Universe in the Light of Modern Physics. Translated by W. H. Johnston. New York: W. W. Norton & Co., Inc. 1931. 116 pp. $2.00.

Trow, William Clark: Educational Psychology. Boston: Houghton Mifflin Co. 1931. xv + 504 pp. $2.80.

Zeller, Eduard: Outlines of the History of Greek Philosophy. Thirteenth Edition, revised by Wilhelm Nestle, and translated by L. R. Palmer. (International Library of Psychology, Philosophy, and Scientific Method.) New York: Harcourt Brace & Co. 1931. London: Kegan Paul, Trench, Trubner & Co., Ltd. xv + 324 pp. $5.00.

NOTES AND NEWS

The first volume of the *Collected Papers of Charles Sanders Peirce,* scientist, logician, and founder of pragmatism, has just been published by the Harvard University Press. This volume is entitled "The Principles of Philosophy" and is composed mainly of papers previously unpublished. It contains his system in outline and his more important papers on the methods and classification of the sciences, phenomenology or the doctrine of the categories, ethics, and esthetics. It will be sold at $4.50. The entire works will consist of about ten volumes; those subscribing to all the volumes will be entitled to a discount of 20%. The second volume dealing with traditional logic, signs, methods of discovery, induction, and probability will follow very shortly. Nearly all the members of the Department of Philosophy at Harvard, as well as other friends of Peirce have devoted much time to the manuscripts of these papers. The final work of arranging the papers and preparing them for the press has been done by Dr. Charles Hartshorne and Dr. Paul Weiss.